

Surface Water Quantity Monitoring in the Southern Plains Network



Importance / Issues

Available water is one of the key drivers of ecosystem function in the Great Plains and provides insights into overall system productivity, shifts in species abundance and distributions, nutrient cycles, and the occurrence and ecosystem response to disturbance events. Natural disturbance processes such as fire, and human land-use activities including livestock grazing, agricultural clearing and groundwater pumping alter watershed conditions and water quantity levels and thus indirectly influence aquatic communities.



Dry Pawnee

Preliminary Monitoring Objective

1. Determine the long-term hydrologic trends for stream flow and lake water levels.
2. Document changes in hydrologic regime associated with hydrological modifications (e.g., dams, diversions) in the SOPN

Potential Measures

Recharge rates, changes in water use, infiltration rate, lake elevation, timing and rates of streamflow, hydroperiod of wetlands

Protocol Development & Status

A cooperative agreement has been developed with Texas State University to develop surface water quantity, surface water quality, and ground water quantity monitoring protocols. The planned completion date for the protocol is October 2007.



Flooding at the Pedernales in Lyndon B. Johnson NHS.

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